



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,385	07/02/2003	Kazushige Hotta	1324.68135	3186
7590	08/01/2005			EXAMINER HU, SHOUXIANG
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606			ART UNIT 2811	PAPER NUMBER
DATE MAILED: 08/01/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

82

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/612,385	HOTTA ET AL.	
	Examiner	Art Unit	
	Shouxiang Hu	2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 01 June 0605.  
 2a) This action is **FINAL**.                                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) 1-15, 18-20, 22 and 23 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 16, 17, 21 and 24-26 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 11 December 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 1-15, 18-20, 22 and 23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, in view of the previous office action and the 12-10-2004 amendment.

Accordingly, claims 1-26 are pending in this application; and claims 16, 17, 21 and 24-26 remain active in this Office action.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Claim 16 recites the subject matters that the recited first insulation film is only formed on the channel region and the low density impurity regions, and that the second insulation film is formed on only the gate electrode and the first insulation film on the low density impurity regions. Such recited subject matters define the structures of the first and second insulation films along both of the channel length direction (or dimension) and the channel width direction (or dimension). However, the relevant drawings do not show any information regarding the structures of the two films along the channel width direction or dimension. Therefore, the recited subject matters along the channel width direction or dimension must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 21 is objected to because of the following informalities and/or defects:

The term of "the source and drain regions" should read as: --at the source and drain regions--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 16, 17, 21 and 24-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matters which were not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 16 recites the subject matters that the recited first insulation film is only formed on channel region and the low density impurity regions, and that the second insulation film is formed on only the gate electrode and the first insulation film on the low density impurity regions. However, full support for them cannot be found in the original disclosure, as such recited subject matters define the structures of the first and second insulation films along both of the channel length direction (or dimension) and the channel width direction (or dimension). For example, the recited first insulation film is readable as the gate insulating layer in the instant invention, which is normally and/or commonly extended to other regions such as extending beyond the gate width along the gate width direction, e.g., regions under the gate line outside the active region. While Figs. 10A-10D, from which applicant alleges that the support for such subject matters can be found, are only cross-section drawings that are in parallel with the channel length direction or dimension, but they contains no information about the structure including

sizes and/shapes of the first and second insulation films along the channel width direction. Accordingly, the original disclosure, including Figs. 10A-10D, lacks an adequate description regarding the dimensions, coverage and/or shape of the recited first and second insulation films along the channel width direction or dimension.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21 and 24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the subject matters of a laser light, but it fail to clarify what is the relationship between the laser light and the final structure of the claimed invention, and in which stage and on what intermediate structure such laser light was applied. Otherwise, it leaves the claimed invention indefinite, as a laser light for different purposes with different strengths and wavelengths applied at different stages may result in different effects on the final structure of the claimed invention.

#### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 16, 17, 25 and 26, insofar as being in compliance with 35 U.S.C. 112, are rejected under 35 U.S.C. 102(b) as being anticipated by Takemura (US 5,719,065).

Takemura discloses active matrix addressed display (AMAD) device having a thin film transistor (TFT) device with a first conductive type TFT (Fig. 5A; TFT1, or TFT2 or TFT3), comprising: a substrate underlying a semiconductor layer including source and drain regions (regions that are in contact with electrodes 503) and low density impurity regions (within regions y or y' in the semiconductor layer) with a channel region therebetween; a first insulation film (the gate insulator layer underlying the gate) formed only on the channel region and the low density impurity regions; a gate electrode; and a second insulation film (the insulating film that is in direct contact with the gate, similar to the insulating film 108 in Fig. 8).

Regarding claims 17, 25 and 26, it is noted that all the recited features in these claims are naturally company comprised in an AMAD such as the one of Takemura (See Figs. 5 and 10).

#### ***Response to Arguments***

9. Applicant's arguments filed on June 06, 2005 have been fully considered but they are not persuasive. Responses to these arguments have been fully incorporated into the claim rejections set forth above in this office action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH  
July 27, 2005



SHOUXIANG HU  
PRIMARY EXAMINER